

FORM PTO-1449

U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICE

## LIST OF REFERENCES CITED BY APPLICANT

(Use several sheets if necessary)

ATTORNEY DOCKET NO.

1614.1220

APPLICATION NO.

64887849  
10/08/02  
03/05/02  
11002 U.S. PRO

FIRST NAMED INVENTOR

Shigemitsu AOKI, et al.

FILING DATE

March 5, 2002

GROUP ART UNIT

## U.S. PATENT DOCUMENTS

| EXAMINER INITIAL |    | DOCUMENT NO. | DATE | NAME | CLASS | SUB-CLASS | FILING DATE |
|------------------|----|--------------|------|------|-------|-----------|-------------|
|                  | AA |              |      |      |       |           |             |
|                  | AB |              |      |      |       |           |             |
|                  | AC |              |      |      |       |           |             |
|                  | AD |              |      |      |       |           |             |
|                  | AE |              |      |      |       |           |             |
|                  | AF |              |      |      |       |           |             |

## FOREIGN PATENT DOCUMENTS

|    |    | DOCUMENT NO. | DATE    | COUNTRY | CLASS | SUB-CLASS | TRANSLATION<br>YES NO |
|----|----|--------------|---------|---------|-------|-----------|-----------------------|
| LD | AG | 5-8483       | 02/1993 | Japan   |       |           | X                     |
|    | AH | 5-70164      | 09/1993 | Japan   |       |           | X                     |
|    | AI | 6-215744     | 08/1994 | Japan   |       |           | X                     |
|    | AJ | 7-122168     | 05/1995 | Japan   |       |           | X                     |
|    | AK | 8-83627      | 03/1996 | Japan   |       |           | X                     |
| ↓  | AL | 8-339752     | 12/1996 | Japan   |       |           | X                     |

## OTHER REFERENCES (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)

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|  | AO |  |

EXAMINER

DONOVAN

DATE CONSIDERED

07-07-04

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



11/14/2002

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|   |  |   |                               |
|---|--|---|-------------------------------|
| FORM PTO-1449   | U.S. DEPARTMENT OF COMMERCE<br>PATENT AND TRADEMARK OFFICE | ATTORNEY DOCKET NO.<br>1614.1220                | APPLICATION NO.<br>10/087,849 |
| LIST OF REFERENCES CITED BY APPLICANT<br><i>(Use several sheets if necessary)</i> |  | FIRST NAMED INVENTOR<br>Shigemitsu AOKI, et al. |                               |
|   |  | FILING DATE<br>March 5, 2002                    | GROUP ART UNIT<br>2836        |

### U.S. PATENT DOCUMENTS

| *EXAMINER INITIAL |    | DOCUMENT NO. | DATE    | NAME                | CLASS | SUB-CLASS | FILING DATE |
|-------------------|----|--------------|---------|---------------------|-------|-----------|-------------|
| LD                | AA | 3,952,271    | 04/1976 | Smirnov et al.      |       |           |             |
|                   | AB | 5,239,202    | 08/1993 | Hostetler           |       |           |             |
|                   | AC | 3,218,406    | 11/1965 | Gomperts et al.     |       |           |             |
|                   | AD | 5,668,533    | 09/1997 | Jackson, Jr. et al. |       |           |             |
|                   | AE | 4,091,346    | 05/1978 | Nishimura et al.    |       |           |             |
| ↓                 | AF | 6,014,008    | 01/2000 | Hartzell et al.     |       |           |             |

### FOREIGN PATENT DOCUMENTS

|    |    | DOCUMENT NO. | DATE    | COUNTRY                | CLASS | SUB-CLASS | TRANSLATION<br>YES NO |
|----|----|--------------|---------|------------------------|-------|-----------|-----------------------|
| LD | AG | 0 304 185    | 02/1989 | European Patent Office |       |           | X                     |
| LD | AH | 100 48 880   | 04/2002 | Germany                |       |           |                       |
|    | AI |              |         |                        |       |           |                       |
|    | AJ |              |         |                        |       |           |                       |
|    | AK |              |         |                        |       |           |                       |
|    | AL |              |         |                        |       |           |                       |

### OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)

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|                   | BA |              |      |      |       |           |             |
|                   | BB |              |      |      |       |           |             |
|                   | BC |              |      |      |       |           |             |
|                   | BD |              |      |      |       |           |             |
|                   | BE |              |      |      |       |           |             |
|                   | BF |              |      |      |       |           |             |

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|    |    | DOCUMENT NO. | DATE    | COUNTRY | CLASS | SUB-CLASS | TRANSLATION<br>YES    NO |
|----|----|--------------|---------|---------|-------|-----------|--------------------------|
| UD | BG | 9-7478       | 01/1997 | Japan   |       |           | X                        |
|    | BH | 9-212757     | 08/1997 | Japan   |       |           | X                        |
|    | BI | 10-12109     | 01/1998 | Japan   |       |           | X                        |
|    | BJ | 11-8942      | 01/1999 | Japan   |       |           | X                        |
|    | BK | 11-232975    | 08/1999 | Japan   |       |           | X                        |
|    | BL | 2000-235828  | 08/2000 | Japan   |       |           | X                        |
| UD | BM | 2000-40452   | 02/2000 | Japan   |       |           | X                        |

## OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)

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|  | BN |  |
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| FORM PTO-146 & TRADEMARK OFFICE   |  | U.S. DEPARTMENT OF COMMERCE<br>PATENT AND TRADEMARK OFFICE | ATTORNEY DOCKET NO.<br>1614.1220 | APPLICATION NO.<br>10/087,849 |
| LIST OF REFERENCES CITED BY APPLICANT<br><i>(Use several sheets if necessary)</i> |  | FIRST NAMED INVENTOR<br>Shigemitsu AOKI, et al.            |                                  |                               |
|   |  | FILING DATE<br>March 5, 2002                               | GROUP ART UNIT<br>2836           |                               |

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| *EXAMINER INITIAL |    | DOCUMENT NO. | DATE    | NAME      | CLASS | SUB-CLASS | FILING DATE |
|-------------------|----|--------------|---------|-----------|-------|-----------|-------------|
| LP                | AA | 3,575,678    | 04/1971 | Barton    |       |           |             |
|                   | AB | 4,284,904    | 08/1981 | Tetro     |       |           |             |
|                   | AC | 5,633,626    | 05/1997 | Cawthorne |       |           |             |
|                   | AD | 6,025,768    | 02/2000 | Martich   |       |           |             |
| ↓                 | AE | 6,348,861    | 02/2002 | Li        |       |           |             |
|                   | AF |              |         |           |       |           |             |

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ATTACHMENT 1(e)

|  |                         |                 |
|--|-------------------------|-----------------|
| <b>EXPLANATIONS OF RELEVANCY<br/>OF REFERENCES</b> | ATTORNEY DOCKET NO.     | APPLICATION NO. |
|  | 1614.1220               |                 |
|  | FIRST NAMED INVENTOR    |                 |
|  | Shigemitsu AOKI, et al. |                 |
| FILING DATE  | March 5, 2002           | GROUP ART UNIT  |
|  |                         |                 |

Each of the references relates to background technology, and do not disclose or suggest patentable features of the present invention.

Japanese Reference AG relates to a proximity sensor 1 including a permanent magnet 3 having a through-hole extending in a direction of magnetization and yoke pieces 4A, 4B provided on both pole surfaces of the permanent magnet 3. In order to detect change of magnetic flux in the through-hole due to a magnetic body approaching the proximity switch, a lead switch 5 or an electro-magnetic conversion element is provided in the through-hole 2.

Japanese Reference AH relates to a direct-current vibrator including a cylindrical body 1 having a movable member provided with a permanent magnet 8 magnetized along the longitudinal direction and a weight 7, which cylindrical body 1 is supported at both end surfaces of the permanent magnet 8 by an initial position determining spring 3 and a shock-absorbing spring 5 in a floated manner, a driving coil 2 wound around the cylindrical body 2 at the position of the permanent magnet 8 and a lead switch 10 provided with a non-magnetic yoke 9 surrounded by soft magnetic material. Above-described elements are connected such that a repulsive force is produced by a magnetic field generated by the driving coil and a magnetic field generated by the permanent magnet.